Amendments to the Drawings

Please replace Figs. 1, 6 and 7 with replacement Figs. 1, 6 and 7 attached hereto.

REMARKS

In response to the Office Action mailed February 9, 2005, the Applicants respectfully request reconsideration. Claims 1-84 were previously pending in this application. Claims 1, 2, 4, 5, 8, 11-16, 20, 30, 32, 33, 37, 41, 42, 45-53, 55, 57 and 63-67 are amended. Claims 3, 7, 31, 34, 39, 40, 44, 62 and 68-84 are cancelled, without prejudice. As a result, claims 1, 2, 4-6, 8-30, 32, 33, 35-38, 41-43, 45-61 and 63-67 are pending for examination with claims 1, 4, 30, 32, 37, 41 and 63-67 being independent claims. No new matter has been added.

Regarding the Drawings

The drawings have been objected to under 37 C.F.R. 1.83(a). The objections with regard to claims 68-84 are moot in light of the cancellation of these claims. With regard to other objections to the drawings, Applicants direct the Examiner's attention to Figs. 1, 6 and 7, which respectively illustrate lighting program 20, playback device 31, playback device 1000 and data (in storage device 620). Further, lighting program 20 is seen to include multiple lighting sequences, as described in the specification for storing multiple lighting sequences 20 within device 620 (page 24, lines 25-27). Applicants also note that the combination of Figs. 1, 6 and 7 illustrates the acts recited in claim 1. For example, acts (A) and (B) are illustrated by the arrows in Fig. 1 connecting processor 10, lighting program 20 and lighting controller 30. Further, the arrows do not restrict the order of acts (A) and (B) and thus serve to illustrate act (B) being performed before act (A).

Additionally, Figs. 1, 6 and 7 are amended to show external devices 800 connected to lighting controller 30 in Fig. 1 and external interfaces 650, 1002 and 1004 in Figs. 6 and 7. The specification is amended to include reference numeral 800 in the corresponding description of external devices. Based on the above, Applicants submit that the drawings, as amended, show every feature of the invention specified in the claims and respectfully request that the objections be withdrawn.

Regarding the Abstract

Applicants thank the Examiner for reminding Applicants of the proper content of an abstract. Applicants note that no objections were raised by the Examiner. Applicants submit

that the Abstract is a concise statement of the disclosure and includes that which is new in the art. Accordingly, the content of the Abstract is proper.

Regarding the Rejections of Claims 68-84

Claims 68-84 are cancelled, without prejudice. Accordingly, rejections of claims 68-84 are moot and are not further addressed in this Response.

Rejections Under 35 U.S.C. §112

The Examiner rejected claims 11-16 and 37-67 as being indefinite for failing to particularly point out and distinctly claims the subject matter which Applicants regard as the invention. Claims 11-16, 37 and 62-67 are amended to overcome the rejection under 35 U.S.C. §112. Applicants respectfully request reconsideration.

Rejections Under 35 U.S.C. §102

In section 9 of the Office Action, claims 30-36 were each rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,769,527, to Taylor (hereinafter Taylor). In sections 10 and 11 of the Office Action, claims 1-26, 30-36, 37-56, 60 and 62-67 were each rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,466,234, to Pyle, et al. (hereinafter Pyle) and U.S. Patent No. 5,945,993, to Fleischmann (hereinafter Fleischmann). Applicants traverse the rejections.

Independent claim 1, as amended, recites "A method for executing a lighting program to control a plurality of lights, the lighting program defining a sequence of states for the plurality of lights, the method comprising acts of: (A) transferring the lighting program ... in a data format having a plurality of frames, each one of the plurality of frames corresponding to one state in the sequence of states for the plurality of lights, and the lighting program being stored by storing a specific frame for each of the states, the data format representing a final data stream capable of directly controlling the plurality of lights; ... and (D) executing the lighting program on the second device by reading the plurality of frames from the computer readable medium and passing the final data stream represented by the plurality of frames to the plurality of lights to control the plurality of lights."

Independent claim 4, as amended, recites "A method for executing a lighting program to control a plurality of lights, the lighting program defining a plurality of states for the plurality of lights, the method comprising acts of: (A) transferring the lighting program from a first device on which the lighting program was created to at least one computer readable medium, the lighting program being transferred in a data format that represents a final data stream capable of directly controlling the plurality of lights; (B) coupling the computer readable medium to a second device; (C) coupling the second device to the plurality of lights; and (D) executing the lighting program on the second device by reading the final data stream from the computer readable medium and transferring the final data stream directly to the plurality of lights without interpolating any of the data included therein to determine a state for the plurality of lights so as to control the plurality of lights."

Independent claim 30, as amended, recites "A computer readable medium encoded with a lighting program ... that defines a sequence of states ... in a data format that represents a final data stream capable of directly controlling the plurality of lights, the data format having a plurality of frames, each one of the plurality of frames corresponding to one state in the sequence of states for the plurality of lights, wherein encoding the computer readable medium includes storing a specific frame for each of the states, the data format representing a final data stream capable of directly controlling the plurality of lights to execute the sequence."

Independent claim 32, as amended, recites "A computer readable medium encoded with a lighting program that, when executed, controls a plurality of lights and defines a plurality of states for the plurality of lights, the lighting program being encoded in a data format that represents a final data stream capable of directly controlling the plurality of lights, wherein the lighting program is encoded in a data format without any information necessary to interpolate any of the data included therein to determine a state for the plurality of lights."

Independent claim 37, as amended, recites "An apparatus for executing a lighting program to control a plurality of lights, the lighting program defining a sequence of states for the plurality of lights, the apparatus comprising: at least one storage medium to store the lighting program in a data format having a plurality of frames, each one of the plurality of frames corresponding to one state in the sequence of states for the plurality of lights, and the lighting program being stored by storing a specific frame for each of the states, the data format

representing a final data stream capable of directly controlling the plurality of lights; and at least one controller that executes the lighting program by reading the plurality of frames from the at least one storage medium and passing the final data stream represented by the plurality of frames to the plurality of lights to control the plurality of lights."

Independent claim 41, as amended, recites "An apparatus for executing a lighting program to control a plurality of lights, the lighting program defining a plurality-of states for the plurality of lights, the apparatus comprising: at least one storage medium to store the lighting program in a data format that represents a final data stream capable of directly controlling the plurality of lights; and at least one controller that executes the lighting program by reading the final data stream from the at least one storage medium and passing the final data stream to the plurality of lights to control the plurality of lights, wherein the at least one controller transfers the final data stream directly to the plurality of lights without interpolating any of the data included therein to determine one of the plurality of states for the plurality of lights."

Independent claim 63, as amended, recites "A method for executing a lighting program to control a plurality of lights, the lighting program including a sequence of commands for controlling the plurality of lights, the method comprising acts of: (A) executing the lighting program on a second device by reading the lighting program from a computer readable medium and passing the sequence of commands to the plurality of lights to control the plurality of lights; and (B) during execution of the lighting program in act (A), changing a parameter of at least one effect assigned, in the lighting program, to at least one of the plurality of lights from a programmed parameter to a new parameter in response to an input from an external device received at the second device."

Independent claim 64, as amended, recites "A method for executing a lighting program to control a plurality of lights, the lighting program including a sequence of commands for controlling the plurality of lights, the method comprising acts of: (A) executing the lighting program on a second device by reading the lighting program from a computer readable medium and passing the sequence of commands to the plurality of lights to control the plurality of lights; and (B) during execution of the lighting program in act (A), changing a speed at which the lighting program is executed from a programmed speed to a new speed in response to an input from an external device received at the second device."

Independent claim 65, as amended, recites "An apparatus for executing a lighting program to control a plurality of lights, the lighting program including a sequence of commands for controlling the plurality of lights, the apparatus comprising at least one storage medium to store the lighting program, at least one input from an external device to receive information concerning an external environment, and at least one controller that executes the lighting program by reading the lighting program from the at least one storage medium and passing the sequence of commands to the plurality of lights to control the plurality of lights, wherein, during execution of the lighting program, the controller changes a parameter of at least one effect assigned, in the lighting program, to at least one of the plurality of lights from a programmed parameter to a new parameter in response to the received information."

Independent claim 66, as amended, recites "An apparatus for executing a lighting program to control a plurality of lights, the lighting program including a sequence of commands for controlling the plurality of lights, the apparatus comprising at least one storage medium to store the lighting program, at least one input from an external device to receive information concerning an external environment, and at least one controller that executes the lighting program by reading the lighting program from the at least one storage medium and passing the sequence of commands to the plurality of lights to control the plurality of lights, wherein, during execution of the lighting program, the controller changes a speed at which the lighting program is executed from a programmed speed to a new speed in response to the received information."

Independent claim 67, as amended, recites "An apparatus for executing a lighting program to control a plurality of lights, the lighting program including a sequence of commands for controlling the plurality of lights, the apparatus comprising at least one storage medium to store the lighting program, a plurality of inputs from at least one external device to receive information concerning an external environment, a cue table that includes a plurality of functions to interpret actions to be taken during execution of the lighting program based upon combined information received at the plurality of inputs, at least one controller, coupled to the cue table, that executes the lighting program by reading the lighting program from the at least one storage medium and passing the sequence of commands to the plurality of lights to control the plurality of lights, wherein, during execution of the lighting program, the controller changes execution of the light program based upon information received from the cue table.

While Applicants have amended claims 1, 4, 30, 32, 37, 41 and 63-67, Applicants do not necessarily concede that the stated bases for rejecting these claims as set forth in the Office action is proper, nor do Applicants agree with the characterizations of the cited Pyle, Fleischmann and Taylor references as set forth in the Office Action. Rather, the Applicants have amended the claims primarily to accelerate prosecution of the present application toward allowance, and reserve the right to file one or more related applications directed to the subject matter of the claims prior to the amendments herein.

The Examiner contends that Pyle and Fleischmann each teach a lighting program defining a plurality of states and encoded in a data format that represents a final data stream capable of directly controlling lights. Applicants disagree. Neither Pyle nor Fleischmann teach a lighting program defining a sequence of states for the plurality of lights and a controller that executes the lighting program for each state in the sequence, as recited in claims 1, 30 and 37. Nor do Pyle and Fleischmann teach executing the lighting program by reading the final data stream from the computer readable medium and transferring the final data stream directly to the plurality of lights without interpolating any of the data included therein to determine a state for the plurality of lights so as to control the plurality of lights, as recited in independent claims 4, 32 and 41.

Pyle describes a system for controlling lighting including a scene description data structure, where a scene defines lighting circuits and a target state for lights on the circuits. A user can access the scene descriptions and request that a particular scene be enabled by requesting a light controller to enable the target state for each circuit within the scene. Once a scene is requested by a user and enabled, that scene remains enabled until a different scene is requested. The data structure does not include a lighting program that defines a sequence of states and a controller to execute the lighting program so as to execute the sequence. A user must separately request a scene for each scene the user wants to enable. The system of Pyle does not include a lighting program to execute a sequence of scenes or states, as recited in claims 1, 30 and 37.

Similarly, Fleischmann describes a lighting control system wherein a particular lighting load is controlled by a user. The user selects a lighting state on a lighting control panel by selecting a representation of the particular lighting load on a pictograph on the control panel. Once a lighting state is selected by a user, that state is active until a different state is selected.

The control panel does not execute a lighting program so as to execute a sequence of states. Each lighting load is separately selected by a user. The system of Fleischmann does not include a lighting program to execute a sequence of scenes or states, as recited in claims 1, 30 and 37.

The Examiner contends that Taylor teaches a computer readable medium encoded with a lighting program defining a plurality of states and encoded in a data format that represents a final data stream capable of directly controlling lights. Applicants disagree. Taylor does not include a computer readable medium encoded with a lighting program that defines a sequence of states in a data format that represents a final data stream capable of directly controlling the plurality of lights. Nor does Taylor include a lighting program in a data format having a plurality of frames, wherein each frame corresponds to one state in the sequence and wherein encoding the computer readable medium includes storing a specific frame for each of the states that represents a final data stream capable of directly controlling the plurality of lights to execute the sequence.

Taylor describes a stage lighting system for a plurality of lamp units controlled by a modular control system including a modular controller mainframe interconnected with a plurality of control devices. The mainframe consists of a plurality of input and output modules, mass storage devices and a main processor kernel, all interconnected by a number of data buses. The input modules serve as an interface between the modular controller mainframe and the diverse protocols of the various control devices. Similarly, the output modules serve as an interface between the modular controller mainframe and the diverse protocols of the various types of lamp units.

Taylor does not include a data format having a plurality of frames, where the frames correspond to states in a sequence of states for the plurality of lights, as recited in Applicants' amended claim 30. Nor does Taylor include storing a specific frame for each of the states that represents a final data stream capable of directly controlling the plurality of lights to execute the sequence, also recited in Applicant's amended claim 30. Rather, Taylor describes a control console for manually setting the light effects, or for executing commands to produce a lighting effect (col. 5, lines 42-48). The controller stores and executes commands to produce a lighting effect, but does not store frames that correspond to states in a sequence of states for the plurality of lights, as does Applicants' computer readable medium.

With respect to independent claims 63-67, the Examiner has not provided any references

in the cited art that show that the features of the claims are anticipated. The Examiner's rejections of claims 63-67 merely state that the claims are rejected, but do not address "changing a parameter ... from a programmed parameter to a new parameter in response to an input from an external device", as recited in Applicants' claims 63-67. It is unclear from the rejection whether the Examiner considered each feature of Applicants' claims. Accordingly, Applicants respectfully request that the rejections to claims 63-67 be withdrawn at the least until the Examiner's rational for rejecting the claims is provided. Additionally, neither Pyle nor Fleischmann include changing a parameter in response to input from an external device. As provided in the remarks above, both Pyle and Fleischmann describe lighting control systems that are responsive to user input, not input from an external device. Thus, neither Pyle nor Fleischmann anticipate Applicants' independent claims 63-67.

For the foregoing reasons, Applicants' independent claims 1, 4, 30, 32, 37, 41 and 63-67 are patentable over the cited art and are allowable. Claims 2, 5, 6, 8-29, 33, 35, 36, 38, 42, 43 and 45-61 respectively depend from one of the independent claims and are allowable at least by dependency.

Rejections Under 35 U.S.C. §103(a)

In section 17 of the Office Action, claims 27-29, 57-59 and 61 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fleischmann in view of Taylor. Applicants traverse the rejections and for the reasons provided in the above remarks, claims 27-29, 57-59 and 61 are patentable over Fleischmann in view of Taylor.

CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the telephone number listed below.

Respectfully submitted,

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